



#### Exfoliative Vaginal Hormonal and Cytological in Premenopausal Women

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**Paper Received date**

05/07/2025

**Paper date Publishing Date**

10/07/2025

**DOI**

<https://doi.org/10.5281/zenodo.17024717>



#### ABSTRACT

The premenopausal period is a transitional phase which bridges the gap between the normal reproductive life characterised by evaluation and menstruation and the complete cessation of this function.

An evaluation and menstruation are dependent on regular rhythmic variation of hormonal activity during the reproductive period. It is expected that profound alterations are bound to occur during the premenopausal period. A large number of women complain of irregular and excessive bleeding this period usually this bleeding is considered as true hormonal dysfunction. Infections and Carcinoma of body of uterus and cervix are also uncommon during this period. According to Donaldson (1952) menopause takes place normally is one of the following ways.

- The period gets less and less, but the interval remains same
- The loss each time remains the same but the interval between the periods gradually increase.
- A combination of 1 x 2 this is perhaps the commonest course of events.

The word exfoliation means the shedding of cells, which occur at the surface of tissue. Exposed to desiccation or abrasion. It is a natural process and the cells lost originally belong to the tissue. Many cells in the cytological smears are not exfoliated they reach the surface by waving through the tissue under the influence of various stimuli.

**Key words:-** Variation, Hormonal, Reproductive, Carcinoma, Donaldson.

**Introduction**

The cells of malignant tumors exfoliate more readily than those from normal tissue. Even though the lesion may be so small as to escape clinical detection.

The cytological changes that occur in the endometrial as a result of ovarian hormones are reflected in the vaginal mucosa as well. These exfoliated cells can easily be collected from the vaginal pool for cytological examination

**Exfoliative cytology of vagina is concerned with**

- Detection of genital Carcinoma and benign lesions of cervix
- Assessment of hormonal function
- Ascertaining the cause of infections

**Detection of Genital Carcinoma and Benign Lesions of Cervix**

In Indian patients cancer of cervix is the commonest fatal malignancy of genital tract and it has long been clear that the efficacy of treatment governed in routine screening of high risk patients and early detection of malignancy which can easily be achieved by exfoliative cytology.<sup>1</sup>

**Assessment of Hormonal Functions**

Vaginal epithelium is extremely sensitive to stimulation by the sex hormones, to which it reacts in a characteristic and predictable way. Therefore, the desquamated cells show considerable variation during the different phases of a woman's life from the time of birth to menopause in response to the interplay of various hormones notably to endogenous, estrogens, progesterone and androgens.

**Ascertaining the Cause of Infection**

During reproductive life bacterial flora is mixed and pathogenic bacteria may be present particularly in lower one third of the vagina. But they do not survive long being inhibited in their growth by the vaginal acidity (pH. to 5.5) It has been estimated that a concentration of lactic acid of 1% may be present during these years. The vaginal acidity is important in maintaining the vaginal health.



Since the discharges can be collected easily during a routine internal examination, without any discomfort to the patient or rather even without the knowledge of the patient.

#### Review of Literature

The father of medical microscopy was the physiologist Johannes Muller. In 1827 he demonstrated that tumors contain cells but he did not mention any difference between benign and malignant ones.<sup>2</sup>

The studies of Virchow, a pupil of Muller, led though the use of microscope, to the initiation of the idea that the fundamental changes in disease can be traced to alterations in the cells of the body Virchow (1858) published Virchow's Archive on the nature of cancer illustrated with drawings of tumour tissue and cancer cells.

The idea of tumor puncture was referred to by Lehert (1851) but it did not develop or a diagnostic method at that time. He also performed measurements on the nuclei and nucleoli and noted increased nucleo cytoplasm ratio in many cancer cells Measurement of this open not repeated for many years and are only now having a renewed importance in connection with attempts at automation of cytodiagnosis.<sup>3</sup>

Marini (1909) studied the gastric washings for the identification of malignant cells (Quimby 1938) preferred supravital methods or stains applied to cells in cytology of serous fluids. suspension for studying the In the words of Clocyng (1919) speak of malignant cells. It is practically impossible to identify these cells from film preparations.

#### Cytodiagnosis from sputum

The first mention cancer cells in sputum is remark in Walshe's A practical treatise on the diseases of the lungs (1860) in which he says that they have been occasionally found microscopically the first illustration is usually attributed to Beale (1501) Though the primary was in pharynx and the sputum was obtained post mortem.

#### Divided of Vaginitis

##### A. Parasite Vaginitis

This can be divided into two groups

Vaginitis due to protozoa

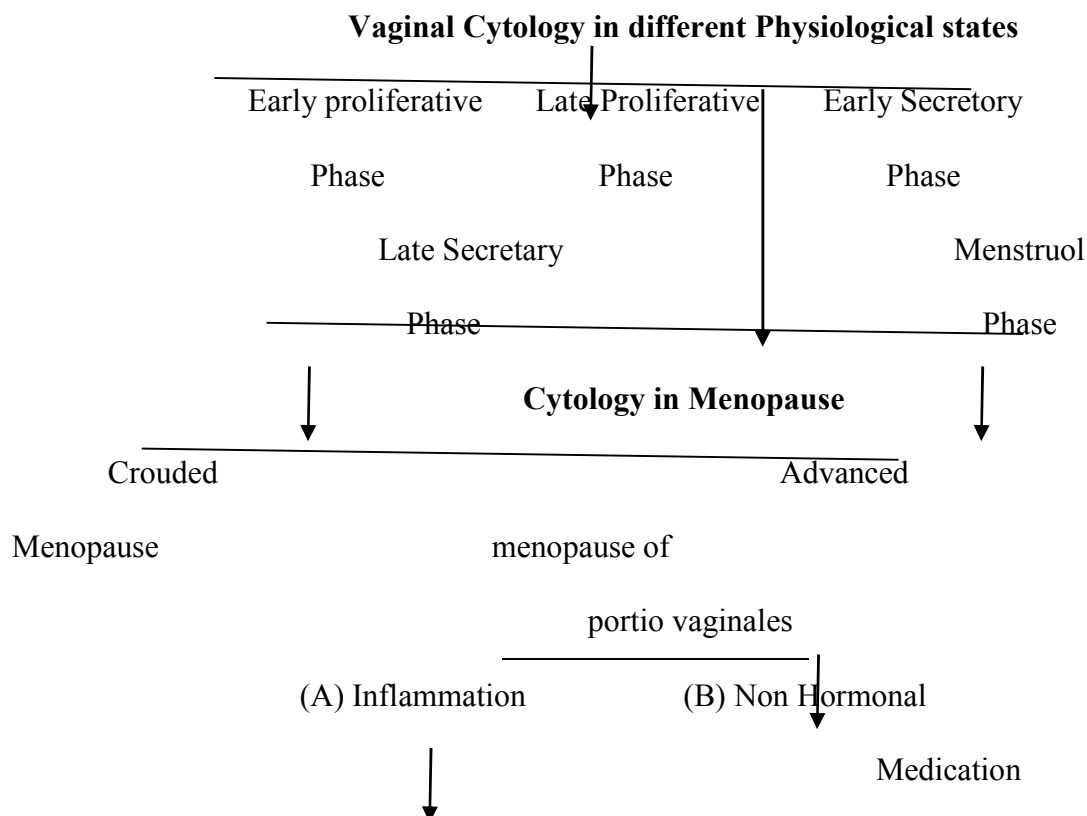
- Trichomonos Virginitis
- Entamoeba Histolytica

Vaginal Mycosis Candida albicans

### B. Protozoal Vaginitis

Bhargawa et al (1986) reported that amoebiasis in India is endemic Extra intestinal involvement is frequently seen Genital involvement, though less common is not rarity of acid PH of menopausal women. normal vagina. happens in as post.<sup>4</sup>

Harrison (1991) described that in vulvovaginal Candidiasis the vaginal discharge is which Scanty and often takes the form of thrush like plaques or cheese like curds adhering to vaginal mucosa.



**Materials and Methods**

The material for the present study comprises of vaginal smears collected from 200 patients attending the out patient department of Zanana Hospital at Orai (U.P) The age of the patients 30 to 35 years. A detailed clinical and vaginal examination was done in every case by the Gynecologist in charge of the case.<sup>5</sup>

Material used for the preparation of vaginal and cervicolsmeas.

- Sinrs speculum and interior vaginal wall retractor
- Wooden spatula shaped like Ayre's spatula.
- Numbered clean. dry glass slides and cover slips.
- Fixative 95% Ethly alcohohal in wide month jars.
- Collen swab

**Preparation of Vaginal Smear**

The patient is placed in lithotomic position. After positioning the speculum in vagina the desired swabbed gently but firmly arca IS

**Methods of Staining Gram Staining Method:**

The bacteria are stained by a parorosaniline dye (Methyl violet) mordanted with iodine. They are then treated with ethyl alcohol. Gram positive bacterial retain a purple colour when 50 treated. Gram negative bacteria completely decolorized. In order to are render these latter organism visible and to distinguish then from those retanmag the colour a counterstrain, usually red, is applied, safranne is used for this purpose.

**Aims**

The aims of the study to find out the deeply concern, and the cytological changes that occur in the endometrial frim and study of ovarian hormone are reflected in the vaginal mucosa as well. To find out the result and outcome the futurisistic planning of me menopausal system.<sup>6</sup>

**Hypotheses**

Ex foliative Vaginal Hormonal and Cytological in Premenopausal Women to applying the memory of cytological and hormonal dysfunction and profound alterations of the human being.



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To study the cause of infection and bacterial flora is mixed and pathogenic bacteria and interplay of various hormones

### Expected outcome

The expected outcome of the hormonal and cytological reason to relate the common concept of the women it also related the various happens of menopausal changes of the teenagers and women. To detail expectation of the clinical and vaginal examination of the medical science and biological science to result and expectation.

### Significance of the study

The study of the topic to create awareness and alertness of the women. how to identify menopausal cycle and the menopausal system to relate the biological and medical science progress and evolution.

### Conclusion

After studying vaginal smears in premenopausal women following conclusion were drawn. Carcinoma and precancerous uncommon in this age group. Lesions of cervix are Menstrual disorders are very common and are due to failing ovarian function which leads to hormonal imbalance. Women in this age group are susceptible to vaginal infection. A low infection. level predisposes estrogen 10 vaginal infection.

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